

## **SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

SDS #: 30896 RUBIA TIR 8600 10W-40

Date of the previous version: 2016-12-29 Revision Date: 2017-02-09 Version 4

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE

COMPANY/UNDERTAKING

## 1.1. Product identifier

Product name RUBIA TIR 8600 10W-40

Number06XSubstance/mixtureMixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Motor oil.

1.3. Details of the supplier of the safety data sheet

Supplier TOTAL LUBRIFIANTS

562 Avenue du Parc de L'ile 92029 Nanterre Cedex

**FRANCE** 

Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71\*\*\*

## For further information, please contact:

Contact Point HSE\*\*\*

E-mail Address rm.msds-lubs@total.com\*\*\*

## 1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

France - ORFILA (INRS) Tél: +33 (0)1 45 42 59 59

In France - Poison centers: ANGERS: 02 41 48 21 21 BORDEAUX: 05 56 96 40 80 LILLE: 08 00 59 59 59 LYON: 04 72 11 69 11 MARSEILLE: 04 91 75 25 25 NANCY: 03 83 22 50 50

PARIS: 01 40 05 48 48 STRASBOURG: 03 88 37 37 37 TOULOUSE: 05 61 77 74 47

## Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

## REGULATION (EC) No 1272/2008 \*\*\*



**SDS #**: 30896

## **RUBIA TIR 8600 10W-40**

Revision Date: 2017-02-09 Version 4

For the full text of the H-Statements mentioned in this Section, see Section 2.2.\*\*\*

#### Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008\*\*\*

## 2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008\*\*\*

Signal Word

None\*\*\*

Hazard Statements \*\*\*

None\*\*\*

**Precautionary Statements** 

None\*\*\*

**Supplemental Hazard Statements** 

EUH210 - Safety data sheet available on request\*\*\*

EUH208 - Contains C14-16-18 Alkyl phenol. May produce an allergic reaction\*\*\*

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.\*\*\*

Environmental properties Should not be released into the environment.\*\*\*

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

## 3.1. Substance\*\*\*

Hazardous ingredients \*\*

Chemical Name	EC-No	REACH registration No	CAS-No	Weight %	Classification (Reg. 1272/2008)
Distillates (petroleum), hydrotreated heavy paraffinic***	265-157-1	01-2119484627-25	64742-54-7	5-<10	Asp. Tox. 1 (H304)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based***	276-737-9	01-2119474878-16	72623-86-0	3-<5	Asp. Tox. 1 (H304)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	276-738-4	01-2119474889-13	72623-87-1	1-<3	Asp. Tox. 1 (H304)
C14-16-18 Alkyl phenol***	931-468-2	01-2119498288-19	۸	1-<3	STOT RE 2 (H373) Skin Sens. 1 (H317)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***	298-577-9	01-2119543726-33	93819-94-4	1-<2.5	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic Chronic 2 (H411)



Additional information

SDS #: 30896 RUBIA TIR 8600 10W-40

Revision Date: 2017-02-09 Version 4

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.\*\*\*

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

## 4.1. Description of first-aid measures

General advice IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR

EMERGENCY MEDICAL CARE.

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids.

**Skin contact** Remove contaminated clothing and shoes. Wash off with soap and water. Wash

contaminated clothing before reuse.

**Inhalation** Move to fresh air.

**Ingestion** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a

physician or Poison Control Center immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

Eye contact Not classified. The supplier of some components contained within this formulation has

indicated that the classification as irritant is not required.

**Skin contact** Not classified. May produce an allergic reaction.

Inhalation Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory

system.

**Ingestion** Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and

diarrhea.

## 4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

#### Section 5: FIRE-FIGHTING MEASURES

## 5.1. Extinguishing media

Suitable Extinguishing Media Carbon dioxide (CO<sub>2</sub>). ABC powder. Foam. Water spray or fog.

**Unsuitable Extinguishing Media**Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Special Hazard Incomplete combustion and thermolysis may produce gases of varying toxicity such as



Revision Date: 2017-02-09 Version 4

carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

## 5.3. Advice for fire-fighters

Special protective equipment for

fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing

water must be disposed of in accordance with local regulations.

## Section 6: ACCIDENTAL RELEASE MEASURES

## 6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely

slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all

sources of ignition.

## 6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Try to prevent the material from

entering drains or water courses. Local authorities should be advised if significant spillages

cannot be contained.

## 6.3. Methods and material for containment and cleaning up

Methods for cleaning up Dam up. Contain spillage, and then collect with non-combustible absorbent material, (e.g.

sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for

disposal.

## 6.4. Reference to other sections

Personal Protective Equipment See Section 8 for more detail.

Waste treatment See section 13.

## Section 7: HANDLING AND STORAGE

## 7.1. Precautions for safe handling

Advice on safe handling When using, do not eat, drink or smoke. For personal protection see section 8. Use only in

well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin, eyes

and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges. Ground/bond containers, tanks

and transfer/receiving equipment.

**Hygiene measures** Ensure the application of strict rules of hygiene by the personnel exposed to the risk of

contact with the product. Regular cleaning of equipment, work area and clothing is



Revision Date: 2017-02-09 Version 4

recommended. Wash hands and face before breaks and immediately after handling the product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

## 7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

Keep away from food, drink and animal feedingstuffs. Keep in a bunded area. Keep container tightly closed. Keep preferably in the original container. Otherwise reproduce all indication of the regulation label on the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Protect from frost, heat and sunlight. Protect from moisture.

Materials to Avoid Strong oxidizing agents.

7.3. Specific end uses

Specific use(s) No information available.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

**Exposure limits** Mineral oil mist:

USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH

(TLV) TWA 5 mg/m<sup>3</sup> (highly refined)

**Legend** See section 16

Derived No Effect Level (DNEL)

**DNEL Worker (Industrial/Professional)** 

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7				5.4 mg/m³/8h (aerosol - inhalation)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*** 72623-86-0				5.4 mg/m³/8h (aerosol - inhalation)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1				5.4 mg/m³/8h (aerosol - inhalation)
C14-16-18 Alkyl phenol***			1.17 mg/m³ (inhalation) 0.30 mg/kg bw/day	



Revision Date: 2017-02-09 Version 4

۸	(dermal)
Zinc	0.58 mg/kg Dermal
bis[O-(6-methylheptyl)]	8.31 mg/m³ Inhalation
bis[O-(sec-butyl)]	
bis(dithiophosphate)***	
93819-94-4	

DNEL Consumer

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7	enects		ellects	1.2 mg/m³/24h (aerosol - inhalation)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*** 72623-86-0				1.2 mg/m³/24h (inhalation -aerosol)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1				1.2 mg/m <sup>3</sup> /24h (aerosol - inhalation)
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)*** 93819-94-4			0.29 mg/kg Dermal 2.11 mg/m³ Inhalation 0.24 mg/kg Oral	

# Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1						9.33 mg/kg food
C14-16-18 Alkyl phenol***	0.100 mg/l (fw) 0.010 mg/l (mw) 1 mg/ (or)	4266.16 mg/kg sediment dw (fw) 426.62 mg/kg sediment dw (mw)	852.58 mg/kg soil dw		100 mg/l	
Zinc bis[O-(6-methylhept yl)] bis[O-(sec-butyl)] bis(dithiophosphate)	0.0046 mg/l mw 0.021 mg/l or	0.0116 mg/kg dw fw 0.00116 mg/kg dw mw	0.00528 mg/kg soil dw		100 mg/l	10.67 mg/kg food
93819-94-4						

8.2. Exposure controls



SDS #: 30896

## **RUBIA TIR 8600 10W-40**

**Revision Date: 2017-02-09** Version 4

**Occupational Exposure Controls** 

Apply technical measures to comply with the occupational exposure limits. When working in **Engineering Measures** 

confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for

breathing and wear the recommended equipment.

**Personal Protective Equipment** 

**General Information** If the product is used in mixtures, it is recommended that you contact the appropriate

protective equipment suppliers. These recommendations apply to the product as supplied.

When workers are facing concentrations above the exposure limit they must use Respiratory protection

appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN

14387). Type A/P1. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

**Eye Protection** If splashes are likely to occur, wear:. Safety glasses with side-shields.

Skin and body protection Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing.

Hydrocarbon-proof gloves: Fluorinated rubber, Nitrile rubber. In case of prolonged contact **Hand Protection** 

with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the

appropriateness of its use and its replacement frequency.

**Environmental exposure controls** 

**General Information** The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<u>Values</u>

**Appearance** 

Color

Physical State @20°C

Odor

**Odor Threshold** 

limpid\*\*\* brown clear\*\*\*

liquid\*\*

Characteristic\*\*\*

No information available

**Property** Ha

Melting point/range \*\*\*

Remarks |

Not applicable\*\*\*

Method

Not applicable\*\*\*

Boiling point/boiling range

>\*\*\* 240\*\*\* °C\*\*\*

No information available\*\*\*

Cleveland Open Cup (COC)\*\*\* Cleveland Open Cup (COC)\*\*\*

**Evaporation rate** 

Flash point \*\*\*

>\*\*\* 464\*\*\* °F\*\*\*

No information available\*\*\*

Version FII



\*\*\* 0.865\*\*\*

865\*\*\* kg/m3\*\*\*

**Revision Date: 2017-02-09** Version 4

ISO 3104 \*\*\*

Flammability Limits in Air

upper \*\*\* Lower \*\*\*

**Vapor Pressure** Vapor density

Relative density Density

Water solubility

Solubility in other solvents

**logPow** 

**Autoignition temperature** 

Decomposition temperature \*\*\*

Viscosity, kinematic \*\*\*

\*\*\* 86.6\*\*\* mm2/s\*\*\* **Explosive properties** Not explosive\*\*\*

Not applicable\*\*\* **Oxidizing Properties** 

Possibility of hazardous reactions No information available\*\*\*

9.2. Other information

\*\*\* Freezing Point \*\*\*

No information available\*\*\*

No information available

No information available\*\*\*

No information available\*\*\* No information available\*\*\*

No information available\*\*\*

No information available\*\*\* No information available\*\*\*

No information available\*\*\*

No information available\*\*\*

@ 15 °C \*\*\*

@ 15 °C\*\*\*

Insoluble\*\*\*

@ 40 °C \*\*\*

## Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

**General Information** No information available.

10.2. Chemical stability

**Stability** Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

**Hazardous Reactions** None under normal processing.

10.4. Conditions to Avoid

**Conditions to Avoid** Heat (temperatures above flash point), sparks, ignition points, flames, static electricity.

10.5. Incompatible materials

**Materials to Avoid** Strong oxidizing agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products None under normal use.



> **Revision Date: 2017-02-09** Version 4

## Section 11: TOXICOLOGICAL INFORMATION

## 11.1. Information on toxicological effects

## Acute toxicity Local effects Product Information

Skin contact . Not classified. May produce an allergic reaction.

Eye contact . Not classified. The supplier of some components contained within this formulation has

indicated that the classification as irritant is not required.

Inhalation . Not classified. Inhalation of vapors in high concentration may cause irritation of

respiratory system.

. Not classified. Ingestion may cause gastrointestinal irritation, nausea, vomiting and Ingestion

diarrhea.

30,976.00\*\*\* mg/kg\*\*\* **ATEmix (oral)** 23,315.00\*\*\* mg/kg\*\*\* ATEmix (dermal) > 20,000.00\*\*\* ppm\*\*\* ATEmix (inhalation-gas) 38.30\*\*\* mg/l\*\*\* ATEmix (inhalation-dust/mist) > 20.00\*\*\* mg/l\*\*\* ATEmix (inhalation-vapor)

#### Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Oral LD50 Dermal	
Distillates (petroleum), hydrotreated heavy paraffinic***	LD50 > 5000 mg/kg bw (rat -	LD50 > 5000 mg/kg bw (rabbit -	LC50 (4h) > 5 mg/l (aerosol) (rat -
	OECD 420)	OECD 402)	OECD 403)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based***	LD50 > 5000 mg/kg bw (Rat -	LD50 > 2000 mg/kg (Rabbit -	LD50 (4h) > 5.53 mg/l (Rat -
	OECD TG 401)	OECD 402)	OECD 403)
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based***	LD50 > 5000 mg/kg bw (rat -	LD50 > 5000 mg/kg bw (rabbit -	LC50 (4h) > 5 mg/l (aerosol) (rat -
	OECD 401)	OECD 402)	OECD 403)
C14-16-18 Alkyl phenol***	LD50 2000 mg/kg bw (rat)	LD50 2000 mg/kg bw (rat)	
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)***	LD50 2600 mg/kg (Rat)	LD50 > 3160 mg/kg (Rabbit - OECD 402)	

## Sensitization

Sensitization Not classified as a sensitizer. The supplier of one of the components contained within this

> formulation has indicated that they have data, which confirms that at the concentration used, no sensitisation classification is required. Contains sensitizer(s). May produce an

allergic reaction.\*\*\*

Specific effects

Carcinogenicity This product is not classified carcinogenic. During use in engines, contamination of oil with

low levels of combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil

is thoroughly removed by washing with soap and water.

This product is not classified as mutagenic.

Mutagenicity This product does not present any known or suspected reproductive hazards. Reproductive toxicity

Repeated Dose Toxicity

**Subchronic toxicity** No information available.



Revision Date: 2017-02-09 Version 4

**Target Organ Effects (STOT)** 

Target Organ Effects (STOT) No information available.

Other information

Other adverse effects Characteristic skin lesions (pimples) may develop following prolonged and repeated

exposures (contact with contaminated clothing).

## Section 12: ECOLOGICAL INFORMATION

## 12.1. Toxicity

Not classified.

## Acute aquatic toxicity - Product Information

No information available.

## Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	-
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*** 72623-86-0		EL50 (48h) > 10000 mg/l (OECD TG 202)	LL50 (96h) > 100 mg/l (OECD TG 203)	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202) LL50 (24h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (48h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (72h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202) LL50 (96h) > 10000 mg/l (Gammarus pulex - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
C14-16-18 Alkyl phenol***		EC50(48h) > 100 mg/l (Daphnia magna - static - OECD202)		
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)*** 93819-94-4	EbC50 (96h) 2.1 mg/l Selenastrum capricornutum (OECD 201)	EL50 (48h) 5.4 mg/l Daphnia magna (OECD 202)	LC50 (96h) 4.5 mg/l Oncorhynchus mykiss (OECD 203)	

Chronic aquatic toxicity - Product Information



Revision Date: 2017-02-09 Version 4

No information available.

## Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy paraffinic*** 64742-54-7		NOEL (21d) 10 mg/l (Daphnia magna - QSAR Petrotox)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*** 72623-86-0		NOEL (21d) = 10 mg/l (OECD TG 202)	NOELR (14d) > 1000 mg/l (QSAR modelled data)	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** 72623-87-1	NOEL (72h) >= 100 mg/l (Pseudokirchnerella subcapitata - OECD 201)	NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox) NOEL (96h) > 100 mg/l (Pimephales promelas - OECD 203)	

## Effects on terrestrial organisms

No information available.

## 12.2. Persistence and degradability

## **General Information**

No information available.

## 12.3. Bioaccumulative potential

**Product Information** No information available.

logPow No information available\*\*\*

Component Information

Chemical Name	log Pow
Distillates (petroleum), hydrotreated heavy paraffinic*** - 64742-54-7	-
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based*** - 72623-86-0	6.1
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based*** - 72623-87-1	4.1
Zinc bis[O-(6-methylheptyl)] bis[O-(sec-butyl)] bis(dithiophosphate)*** - 93819-94-4	0.9

## 12.4. Mobility in soil

Soil Given its physical and chemical characteristics, the product generally shows low soil

mobility.

Air Loss by evaporation is limited.

Water Insoluble. The product spreads on the surface of the water.



**SDS #**: 30896

## **RUBIA TIR 8600 10W-40**

Revision Date: 2017-02-09 Version 4

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

**General Information** No information available.

## Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

Waste from Residues / Unused

Products

Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration. After use, this oil must be sent to a licensed waste oil facility. Incorrect disposal of used oil poses a risk to the environment. Mixture with other waste

types such as solvents, brake- and cooling liquids is forbidden.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or

disposal.

**EWC Waste Disposal No.** The following Waste Codes are only suggestions:. 13 02 05. According to the European

Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was

used.

## Section 14: TRANSPORT INFORMATION

ADR/RID Not regulated

IMDG/IMO Not regulated

ICAO/IATA Not regulated

ADN Not regulated

## Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Further information



Revision Date: 2017-02-09 Version 4

No information available

## 15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

#### Section 16: OTHER INFORMATION

#### Full text of H-Statements referred to under sections 2 and 3

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H373 - May cause damage to the kidneys/ liver/ eyes/ brain/ digestive system/ central nervous system through prolonged or repeated exposure if swallowed

H411 - Toxic to aquatic life with long lasting effects\*\*\*

#### Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

#### Legend Section 8

TWA: Time Weight Average STEL: Short Time Exposure Limit PEL: Permissible exposure limit REL: Recommended exposure limit TLV: Threshold Limit Values

+ Sensitizer \* Skin designation
\*\* C: Carcinogen

M: Mutagen R: Toxic to reproduction



Revision Date: 2017-02-09 Version 4

Revision Date: 2017-02-09

**Revision Note**\*\*\* Indicates updated section.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

**End of the Safety Data Sheet**